



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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DEA Reference: 14/12/16/3/3/2/1009

Enquiries: Ms Thulisile Nyalunga

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Mr Richard Gordon
Business Venture Investments No. 1788 (Pty) Ltd
PO Box 23101
CLAREMONT
7735

Telephone Number: 021 670 1408
Email Address: richard.gordon@aiimafrica.com

PER MAIL / E-MAIL

Dear Mr Gordon

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998: GN R. 983/984/985 FOR THE KOKERBOOM 3 WIND ENERGY FACILITY AND ITS ASSOCIATED INFRASTRUCTURE ON FARMS RE/213, 1/214 AND 2/214, NEAR LOERIESFONTEIN WITHIN THE HANTAM LOCAL MUNICIPALITY IN THE NORTHERN CAPE PROVINCE

With reference to the above application, please be advised that the Department has decided to grant authorisation. The environmental authorisation (EA) and reasons for the decision are attached herewith.

In terms of regulation 4(2) of the Environmental Impact Assessment Regulations, 2014 (the Regulations), you are instructed to notify all registered interested and affected parties, in writing and within 14 (fourteen) days of the date of the EA, of the Department's decision in respect of your application as well as the provisions regarding the submission of appeals that are contained in the Regulations.

Your attention is drawn to Chapter 2 of Government Notice No. R.993, which prescribes the appeal procedure to be followed. An appellant must submit an appeal to the appeal administrator, and a copy of the appeal to the applicant, any registered interested and affected party and any organ of state with interest in the matter within 20 days from the date that the notification of the decision was sent to the registered interested and affected parties by the applicant.

By post: Private Bag X447,
Pretoria, 0001; or

By hand: Environment House
473 Steve Biko Road,
Arcadia,
Pretoria, 0083

If the applicant wishes to lodge an appeal, it must also serve a copy of the notice of intention to appeal on all registered interested and affected parties as well as a notice indicating where, and for what period, the appeal submission will be available for inspection, should you intend to submit an appeal.

MJ

Appeals must be submitted in writing to:

Mr Z Hassam, Director: Appeals and Legal Review, of this Department at the above mentioned addresses. Mr Hassam can also be contacted at:

Tel: (012) 399 9356

Email: Appealsdirector@environment.gov.za

Please note that in terms of section 43(7) of the National Environmental Management Act (NEMA), 1998, an appeal under section 43 of that Act will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged, you may not commence with the activity until such time that the appeal is finalised.

For guidance on appeals submitted to the Minister in terms of National Environmental Management Act (NEMA) and the SEMAs, please find a copy of the guideline on the administration of appeals on the Department's website: (https://www.environment.gov.za/documents/forms#legal_authorisations).

Kindly include a copy of this document with the letter of notification to interested and affected parties.

Yours faithfully



Mr Sabelo Malaza
Chief Director: Integrated Environmental Authorisations
Department of Environmental Affairs

Date: 13/02/2013

cc:	M Barry	Aurecon SA (Pty) Ltd	Email: Mieke.Barry@arecongroup.com
	T Makaudi	Northern Cape DEA&NC	Email: tmakaudi@ncpg.gov.za
	JR van Wyk	Hantam Local Municipality	Email: secretary@hantam.gov.za



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Environmental Authorisation

In terms of Regulation 25 of the Environmental Impact Assessment Regulations, 2014

Kokerboom 3 Wind Energy Facility and its associated infrastructure on Farms Re/213, 1/214 and 2/214,
near Loeriesfontein within the Hantam Local Municipality in the Northern Cape Province

Namakwa District Municipality

Authorisation register number:	14/12/16/3/3/2/1009
Last amended:	<i>First issue</i>
Holder of authorisation:	<i>Business Venture Investments No. 1788 (Pty) Ltd</i>
Location of activity:	<i>NORTHERN CAPE PROVINCE: Remaining extent of the Farm Aan de Karree Doorn Pan, Farm No. 213; Portion 1 of the Farm Karree Doorn Pan, Farm No. 214; and Portion 2 of the Farm Karree Doorn, Pan Farm No. 214, within Ward 5 of the Hantam Local Municipality.</i>

This authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.

Decision

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this environmental authorisation, that the applicant should be authorised to undertake the activities specified below.

Non-compliance with a condition of this environmental authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, 1998 and the EIA regulations.

Details regarding the basis on which the Department reached this decision are set out in Annexure 1.

Activities authorised

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the Environmental Impact Assessment Regulations, 2014 the Department hereby authorises –

BUSINESS VENTURE INVESTMENTS NO. 1788 (PTY) LTD

(hereafter referred to as the **holder of the authorisation**)

with the following contact details –

Mr Richard Gordon
Business Venture Investments No. 1788 (Pty) Ltd
PO Box 23101
CLAREMONT
7735

Telephone number: 021 670 1408
Cell phone number: 082 564 5664
Email address: richard.gordon@aiimafrica.com

to undertake the following activities (hereafter referred to as "the activity") indicated in Listing Notice 1, Listing Notice 2 and Listing Notice 3 as amended (GN R. 983, 984 and 985 as amended):

Activity number	Activity description
<p><u>GN R 983 Activity 11:</u> <i>"The development of facilities or infrastructure for the transmission and distribution of electricity-</i> (i) <i>outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts."</i></p>	<p>An on-site collector substation will be required for the Kokerboom 3 Wind Farm which will step up power from 33kV to 132kV. Turbines will be linked to each other and the on-site substation via overhead and/or subterranean medium voltage cables (~33kV).</p>
<p><u>GN R. 983 Activity 12:</u> <i>"The development of –</i> (ii) <i>infrastructure or structures with a physical footprint of 100 square metres or more;</i> <i>Where such development occurs –</i> (a) <i>within a watercourse;</i> (c) <i>if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse;</i></p>	<p>Drainage lines are scattered across the site and one or more roads, power lines, and/or buildings are likely to cross these lines or be within 32m thereof. All wind turbines have been located more than 32m away from a watercourse.</p>
<p><u>GN R. 983 Activity 19:</u> <i>"The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse."</i></p>	<p>Drainage lines are scattered across the site. The infilling or depositing of material of more than 10m³ into a watercourse may therefore occur with the construction of the internal service roads or cables across these drainage lines.</p>
<p><u>GN R. 983 Activity 24:</u> <i>"The development of a road -</i> (ii) <i>with a reserve wider than 13.5 metres, or where no reserve exists where the road is wider than 8 metres."</i></p>	<p>Permanent roads of sufficient width (~8m) for crawler cranes will be required for the wind energy facility (WEF). During construction, these roads may need to be up to ~20m wide (8m wide road and 12m buffer/ reserve) to accommodate the movement of heavy vehicles and cable trenching activities.</p>

<p><u>GN R. 983 Activity 28:</u> <i>"Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 1 April 1998 and where such development: (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 ha"</i></p>	<p>The farm on which the WEF is to be developed is likely to have been used, or is still being used, for livestock grazing (mostly sheep).</p>
<p><u>GN R. 983 Activity 56:</u> <i>"The widening of a road by more than 6m, or lengthening of a road by more than 1km- (ii) where no reserve exists, where the existing road is wider than 8m."</i></p>	<p>Access roads of approximately 8m in width, with a reserve/buffer of approximately 12m, would be required to develop the wind farm and in combination would exceed 1km. Existing roads would be used as far as practically possible and feasible, but would likely require widening by more than 6m.</p>
<p><u>GN R. 984 Activity 1:</u> <i>"The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 megawatts or more."</i></p>	<p>The wind farm would have a maximum generation capacity of up to 240MW.</p>
<p><u>GN R. 984 Activity 15:</u> <i>"The clearance of an area of 20 hectares or more of indigenous vegetation."</i></p>	<p>Physical alteration of undeveloped land for industrial use would take place, which would require the clearance of indigenous vegetation. The total area to be disturbed is expected to be approximately 155ha (to be rehabilitated down to ~80ha permanent footprint).</p>
<p><u>GN R. 985 Activity 18:</u> <i>"The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre. (g) <u>Northern Cape:</u> (ii) <u>Outside urban areas:</u></i></p>	<p>Access roads of approximately 8m in width (with a buffer/road reserve area of approximately 12m) would be required to develop the wind farm and in combination would exceed 1km. Existing roads</p>

(ii) <i>Areas within a watercourse or wetland; or within 100 metres from the edge of a watercourse or wetland.</i>	would be used as far as practically possible and feasible, but would likely require widening by more than 4m. Some of these roads will fall within 100m of the delineated watercourses (drainage lines) on the site and some crossings will be required.
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as described in the Environmental Impact Assessment Report (EIAr) dated October 2017 at:

Farm Names:

Remaining extent of the Farm Aan de Karree Doorn Pan, Farm No. 213;

Portion 1 of the Farm Karree Doorn Pan, Farm No. 214; and

Portion 2 of the Farm Karree Doorn, Pan Farm No. 214.

21 SG Codes:

C	0	1	5	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0
C	0	1	5	0	0	0	0	0	0	0	0	0	2	1	4	0	0	0	0	1
C	0	1	5	0	0	0	0	0	0	0	0	0	2	1	4	0	0	0	0	2

Corner point coordinates of the Kokerboom 3 Wind Farm properties	Latitude	Longitude
1	30° 19'6.20"S	19° 27'53.86"E
2	30° 19'2.41"S	19° 32'1.68"E
3	30° 21'6.13"S	19° 35'36.63"E
4	30° 21'43.72"S	19° 34'40.57"E
5	30° 25'57.74"S	19° 33'27.95"E
6	30° 24'28.39"S	19° 26'32.09"E

the location indicated in the locality plan, attached as Annexure 2 of this authorisation.

- for the Kokerboom 3 Wind Energy Facility of up to 240MW and its associated infrastructure near Loeriesfontein within the Hantam Local Municipality, which falls under the jurisdiction of the Namakwa District Municipality in the Northern Cape Province, hereafter referred to as "the property".

The Kokerboom 3 Wind Farm will consist of the following:

- Turbines: Up to 60 wind turbines with a generating capacity of up to 4MW per turbine, with a rotor diameter of up to 150m and a hub height up to 150m; the minimum tip height (ground clearance) will be at least 30m;
- Crane hard stands: One per turbine approximately 50m x 25m, which will remain for the duration of the construction and operational phases;
- Access road and internal roads: An access road to the site will need to be constructed as well as internal roads within the windfarm. During construction, they may need to be up to 20m wide (8m wide road and 12m buffer/reserve), but will be rehabilitated down to ~8m wide after construction. Where possible, existing tracks will be upgraded;
- Onsite substation;
- Cables: Medium voltage cables linking wind turbines to each other and the onsite substation will be installed. Cables may be laid underground or may be overhead lines;
- Permanent Operations and Maintenance (O&M) buildings: Facilities will include offices, ablution facilities, workshop and storage areas, control room, parking area and other facilities;
- Construction laydown areas;
- Site office; and
- Batching plant and stockpile area.

Technical details for the Kokerboom 3 Wind Farm:

Component	Description/ Dimensions
Location of the site	The southern section of the remainder of Farm Aan de Karree Doorn Pan (RE/213), and Portions 1 and 2 of Farm Karree Doorn Pan (1/214 and 2/214).
Facility area	Project area: 2,563ha, of which: Affected (disturbed) land will be 155ha (temporary construction footprint); which will be rehabilitated down to ~80ha (permanent footprint).
Site access	The site will be accessed directly off the Nuwepos Road. Existing roads will be utilised and upgraded as far as possible.

Access and Internal roads	Construction- up to approximately 20m width x approximately 70km (length) = 1, 400, 000m ² Permanent- approximately 8m (width) x approximately 70km (length) = 560,000m ² .
Export capacity	Up to 240MW.
Technology	Wind Energy- onshore turbines.
Number of Turbines	Up to a maximum of 60 wind turbine generators.
Hub height from ground level	Up to 150m.
Rotor diameter	Up to 150m.
Blade Tip Height	Maximum upper tip height: 225m. Minimum lower tip height: 30-40m.
Area occupied by both permanent and construction laydown areas	Total approximately 114,100m ² comprised of: <ul style="list-style-type: none"> • Construction laydown areas: up to 34,100m² (including site office/camp: approximately 150m x 150m or 22 500m²; cement batching plant and stockpile area: approximately 100m x 50m or 5000m²; construction yard: approximately 5000m²; and laydown area: approximately 1600m²); and • Permanent laydown areas: approximately 80,000m² (hard stands).
Area occupied by buildings	Approximately 14,400m ² (permanent Operations & Maintenance (O&M) Complex, approximately 120m X 120m).
Grid connection	Approximately 11km from the new onsite substation to the existing Eskom Helios substation as the crow flies.
Fencing of the site	Fencing will be considered during design through consultation with the landowner and proponent.
Onsite substation	An onsite substation with a footprint of approximately 14,400m ² (approximately 120m x 120m or 14 400m ²).

Conditions of this Environmental Authorisation

Scope of authorisation

1. The development of the Kokerboom 3 Wind Energy Facility and its associated infrastructure with a maximum output capacity of up to 240MW as described above, is hereby approved on the southern section of the remainder of Farm Aan de Karree Doorn Pan (RE/213), and Portions 1 and 2 of Farm Karree Doorn Pan (1/214 and 2/214).
2. Authorisation of the activity is subject to the conditions contained in this environmental authorisation, which form part of the environmental authorisation and are binding on the holder of the authorisation.
3. The holder of the authorisation is responsible for ensuring compliance with the conditions contained in this environmental authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.
4. The activities authorised may only be carried out at the property as described above.
5. Any changes to, or deviations from, the project description set out in this environmental authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further environmental authorisation in terms of the regulations.
6. The holder of an environmental authorisation must apply for an amendment of the environmental authorisation with the competent authority for any alienation, transfer or change of ownership rights in the property on which the activity is to take place.
7. This activity must commence within a period of five (05) years from the date of issue of this environmental authorisation. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken.
8. Commencement with one activity listed in terms of this environmental authorisation constitutes commencement of all authorised activities.

Notification of authorisation and right to appeal

9. The holder of the authorisation must notify every registered interested and affected party, in writing and within 14 (fourteen) calendar days of the date of this environmental authorisation, of the decision to authorise the activity.
10. The notification referred to must –
 - 10.1. specify the date on which the authorisation was issued;
 - 10.2. inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014;
 - 10.3. advise the interested and affected party that a copy of the authorisation will be furnished on request; and
 - 10.4. give the reasons of the competent authority for the decision.
11. The holder of the authorisation must publish a notice –
 - 11.1. informing interested and affected parties of the decision;
 - 11.2. informing interested and affected parties where the decision can be accessed; and
 - 11.3. drawing the attention of interested and affected parties to the fact that an appeal may be lodged against this decision in terms of the National Appeal Regulations, 2014.

Commencement of the activity

12. The authorised activity shall not commence until the period for the submission of appeals has lapsed as per the National Appeal Regulations, 2014. In terms of section 43(7), an appeal under section 43 of the National Environmental Management Act, 1998 will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged you may not commence with the activity until such time that the appeal has been finalised.

Management of the activity

13. A copy of the final site layout map must be made available for comments by registered Interested and Affected Parties and the holder of this environmental authorisation must consider such comments. Once amended, the final development layout map must be submitted to the Department for written approval prior to commencement of the activity.

14. All available biodiversity information must be used in the finalisation of the layout map. The results of the pre-construction bird and bat monitoring assessments, including all recommendations proposed by the EIAr dated October 2017, must inform the final layout and the construction schedule of the facility. The final placement of turbines must follow a micro-siting procedure involving a walk-through and identification of any sensitive areas by botanical, avifaunal, bat, aquatic and heritage specialists. Existing infrastructure must be used as far as possible e.g. roads. The layout map must indicate the following:
 - 14.1. Cable routes (where they are not along internal roads);
 - 14.2. Final position of wind turbines and associated infrastructure (taking into consideration the preferred Alternative 2 layout for the facility presented in the EIAr dated October 2017);
 - 14.3. The final site access road off Nuwepos Road for access during construction and during the future operational and ultimate decommissioning phase of the facility (either the Alternative 1 or Alternative 2 access road options presented and assessed in the EIAr dated October 2017, given the similarity of impacts between the two alternatives).
 - 14.4. Internal roads indicating width;
 - 14.5. Wetlands, drainage lines, rivers, stream and water crossing of roads and cables;
 - 14.6. All sensitive features e.g. Critical Biodiversity Areas, Ecological Support Areas, heritage sites, wetlands, pans and drainage channels that will be affected by the facility and associated infrastructure;
 - 14.7. Substation(s) inverters and/or transformer(s) sites including their entire footprint;
 - 14.8. Connection routes (including pylon positions) to the distribution/transmission network;
 - 14.9. All existing infrastructure on the site, such as roads;
 - 14.10. Soil heaps (temporary for topsoil and subsoil and permanently for excess material);
 - 14.11. Buildings, including accommodation; and,
 - 14.12. All "no-go" and buffer areas.
15. Furthermore, a shapefile of the approved development layout/footprint must be submitted to this Department within two months from the date of this decision. The shapefile must be created using the Hartebeesthoek 94 Datum and the data should be in Decimal Degree Format using the WGS 84 Spheroid. The shapefile must include at a minimum the following extensions i.e. .shp; .shx; .dbf; .prj; and, .xml (Metadata file). If specific symbology was assigned to the file, then the .avl and/or the .lyr file must also be included. Data must be mapped at a scale of 1:10 000 (please specify if an alternative scale was used). The metadata must include a description of the base data used for digitizing. The shapefile must be submitted in a zip file using the EIA application reference number as the title. The shape file must be submitted to:

Postal Address:

Department of Environmental Affairs
Private Bag X447
Pretoria
0001

Physical address:

Department of Environmental Affairs
Environment House
473 Steve Biko
Arcadia
Pretoria

For Attention: Mr Muhammad Essop
Integrated Environmental Authorisations
Strategic Infrastructure Developments
Telephone Number: 012 399 9406
Email Address: MEssop@environment.gov.za

16. The Environmental Management Programme (EMPr) submitted as part of the EIAr is not approved and must be amended to include measures as dictated by the final site lay-out map and micro-siting, and the provisions of this environmental authorisation. The EMPr must be made available for comments to registered Interested and Affected Parties and the holder of this environmental authorisation must consider such comments. Once amended, the final EMPr must be submitted to the Department for written approval prior to commencement of the activity. Once approved, the EMPr must be implemented and adhered to. It must be included in all contract documentation for all phases of the development when approved.
17. The EMPr amendment must include the following:
 - 17.1. An Electromagnetic Compatibility (EMC) Control Plan, which identifies potential risk, mitigation measures and appropriate test and acceptable procedures during the design and construction of this facility. The EMC Control Plan must have been made available to the Square Kilometre Array South Africa (SKA-SA) for acceptance and the SKA-SA accepted EMC Control Plan must be submitted to this Department for approval prior to construction.
 - 17.2. All recommendations and mitigation measures recorded in the EIAr.

- 17.3. All mitigation measures as listed in the specialist reports attached to the EIAr.
- 17.4. The requirements and conditions of this authorisation. In the event of any conflicting mitigation measures between the EIAr, specialist reports and the conditions of the Environmental Authorisation, the specific condition of this Environmental Authorisation will take preference.
- 17.5. The final site layout map.
- 17.6. An alien invasive management plan to be implemented during construction and operation of the facility. The plan must include mitigation measures to reduce the invasion of alien species and ensure that the continuous monitoring and removal of alien species is undertaken.
- 17.7. A plant rescue and protection plan which allows for the maximum transplant of conservation important species from areas to be transformed. This plan must be compiled by a vegetation specialist familiar with the site in consultation with the ECO and be implemented prior to commencement of the construction phase.
- 17.8. A re-vegetation and habitat rehabilitation plan to be implemented as soon as possible after completion of construction activities, to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.
- 17.9. A traffic management plan for the site access roads to ensure that no hazards would result from the increased truck traffic and that traffic flow would not be adversely impacted. This plan must include measures to minimize impacts on local commuters e.g. limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time and avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
- 17.10. A construction and operational avifauna and bat monitoring plan, developed according to the latest BirdLife South Africa/Endangered Wildlife Trust: Best practice guidelines for avian monitoring and impact mitigation at proposed wind energy development sites in Southern Africa and the latest South African Bat Assessment Advisory Panel's (SABAAP) guidelines.
- 17.11. A storm water management plan to be implemented during the construction and operation of the facility. The plan must ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion. The plan must include the construction of appropriate design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-off.
- 17.12. An erosion management plan for monitoring and rehabilitating erosion events associated with the facility. Appropriate erosion mitigation must form part of this plan to prevent and reduce the risk of any potential erosion.

- 17.13. An effective monitoring system to detect any leakage or spillage of all hazardous substances during their transportation, handling, use and storage. This must include precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or storm water systems.
- 17.14. A fire management plan to be implemented during the construction and operational phases.
- 17.15. Measures to protect hydrological features such as streams, rivers, pans, wetlands, dams and their catchments, and other environmental sensitive areas from construction impacts including the direct or indirect spillage of pollutants.
- 17.16. An environmental sensitivity map indicating environmental sensitive areas and features identified during the EIA process.
- 17.17. A map combining the final layout map superimposed (overlain) on the environmental sensitivity map. This map must reflect the location of the turbines as stated in the EIA and this authorisation.

Frequency and process of updating the EMPr (once approved)

18. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 26 below, indicate insufficient mitigation of environmental impacts associated with the undertaking of the activity, or insufficient levels of compliance with the environmental authorisation or EMPr.
19. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
20. The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of GN R. 982. The updated EMPr must have been subjected to a public participation process, which process has been agreed to by the Department, prior to submission of the updated EMPr to the Department for approval.
21. In assessing whether to grant approval of an EMPr which has been updated as a result of an audit, the Department will consider the processes prescribed in Regulation 35 of GN R.982. Prior to approving an amended EMPr, the Department may request such amendments to the EMPr as it deems appropriate to ensure that the EMPr sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.
22. The holder of the authorisation may apply for an amendment of an EMPr, if such amendment is required before an audit is required. In assessing whether to grant such approval or not, the Department will consider the processes and requirements prescribed in Regulation 37 of GN R. 982.

Monitoring

23. The holder of the authorisation must appoint an experienced independent Environmental Control Officer (ECO) for the construction phase of the development that will have the responsibility to ensure that the mitigation/rehabilitation measures and recommendations referred to in this environmental authorisation are implemented and to ensure compliance with the provisions of the approved EMPr.
 - 23.1. The ECO must be appointed before commencement of any authorised activities.
 - 23.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
 - 23.3. The ECO must keep record of all activities on site, problems identified, transgressions noted and a schedule of tasks undertaken by the ECO.
 - 23.4. The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.

Recording and reporting to the Department

24. All documentation e.g. audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this environmental authorisation, must be submitted to the *Director: Compliance Monitoring* of the Department.
25. The holder of the environmental authorisation must, for the period during which the environmental authorisation and EMPr remain valid, ensure that project compliance with the conditions of the environmental authorisation and the EMPr are audited, and that the audit reports are submitted to the *Director: Compliance Monitoring* of the Department.
26. The frequency of auditing and of submission of the environmental audit reports must be as per the frequency indicated in the EMPr, taking into account the processes for such auditing as prescribed in Regulation 34 of GN R. 982.
27. The holder of the authorisation must, in addition, submit environmental audit reports to the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities.
28. The environmental audit reports must be compiled in accordance with Appendix 7 of the EIA Regulations, 2014 and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the approved EMPr.

29. Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.

Notification to authorities

30. A written notification of commencement must be given to the Department no later than fourteen (14) days prior to the commencement of the activity. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence, as well as a reference number.

Operation of the activity

31. A written notification of operation must be given to the Department no later than fourteen (14) days prior to the commencement of the activity operational phase.

Site closure and decommissioning

32. Should the activity ever cease or become redundant, the holder of the authorisation must undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and competent authority at that time.

Specific conditions

33. A pre-construction walk through must be conducted by a heritage specialist, aquatic specialist, ecologist, bat specialist and avifaunal specialist, to ensure that the micro-siting of the facility infrastructure, including the turbines, access roads, onsite substation and power line alignments have the least possible impact, that all protected plant species and sensitive habitats impacted are identified and that any nests/breeding/roosting activity of priority species are identified.
34. A minimum turbine tip height (ground clearance) of 30 - 40m for all turbines must be applied to reduce the risk of Red Lark *Calendulauda burra* mortality during display flight activity.
35. As an absolute minimum, avifauna and bat monitoring must occur during the construction period and continue for at least three years during the operation of the facility. The results of this monitoring must be made available to the DEA, Birdlife South Africa (BLSA) and the South African Bat Assessment Advisory Panel (SABAAP) and must further advise the EMPr where necessary.

36. Anti-collision devices such as bird flappers must be installed where power lines cross avifaunal corridors (e.g. grasslands, rivers, wetlands, and dams).
37. A 200m no-go buffer must be applied around all identified water points as they serve as focal points for bird activity.
38. All watercourses are regarded as sensitive. All developments within 500m of watercourses must comply with the National Water Act.
39. The holder of this authorisation must obtain a Water Use Licence from the Department of Water and Sanitation (DWS) prior to the commencement of the project should the holder impact on any wetland or water resource. A copy of the license must be kept by the ECO.
40. No turbines must be constructed in no-go areas, while associated infrastructure (roads, power lines and substations) must be avoided where possible in these areas.
41. Before the clearing of the site, the appropriate permits must be obtained from the Department of Agriculture, Forestry and Fisheries (DAFF) for the removal of plants listed in the National Forest Act and from the relevant provincial department for the destruction of species protected in terms of the specific provincial legislation. Copies of the permits must be kept by the ECO.
42. Relevant permits must be obtained from relevant authorities for any removal or destruction of Threatened or Protected Species (TOPs).
43. Removal of alien invasive species or other vegetation and follow-up procedures must be in accordance with the Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983).
44. Disturbed areas must be rehabilitated as soon as possible after construction, with locally indigenous plants, to enhance the conservation of existing natural vegetation on site.
45. Existing road infrastructure must be used as far as possible for providing access to the turbines. Where no road infrastructure exists, new roads must be placed within existing disturbed areas or environmental conditions must be taken into account to ensure that the minimum amount of damage is caused to natural habitats.
46. Signs must be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information. To minimize impacts on local commuters, consideration must be given to limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time.
47. Necessary permits must be obtained for the oversized construction vehicles to transport turbine components, if required.
48. The holder of this authorisation must ensure that the National Noise Control Regulations and SANS10103:2008 are adhered to and measures to limit noise from the work site are implemented.

49. Lighting of main structures (turbines) and ancillary buildings must be designed to minimise light pollution without compromising safety, and turbines must be lit according to Civil Aviation Regulations.
50. Should any occupied farm buildings be affected by shadow flicker, the holder of this Environmental Authorisation must provide mitigation measures to reduce the impact to an acceptable level as advised by a suitably qualified specialist.
51. The holder of this authorisation must obtain approval from the South Africa Weather Services (WeatherSA) that the energy facility will not interfere with the performance of their equipment, especially radar, prior to commencement of the activity. A copy of the approval must be kept on site by the ECO.
52. Appropriate dust suppression techniques must be implemented on all exposed surfaces during periods of high wind. Such measures may include wet suppression, chemical stabilisation, the use of a wind fence, covering surfaces with straw chippings and re-vegetation of open areas.
53. Hazardous and flammable substances must be stored and used in compliance to the applicable regulations and safety instructions. Furthermore, no chemicals must be stored nor may any vehicle maintenance occur within 350m of the temporal zone of wetlands, drainage lines with or without an extensive floodplain, or hillside wetlands.
54. Areas around fuel tanks must be bunded or contained in an appropriate manner as per the requirements of SABS 089:1999 Part 1.
55. An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling and re-use options where appropriate. Where solid waste is disposed of, such disposal shall only occur at a landfill licensed in terms of section 20(b) of the National Environment Management Waste Act, 2008 (Act 59 of 2008).
56. If any evidence of archaeological sites or remains (e.g., remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, marine shell and charcoal/ash concentrations), unmarked human burials, fossils or other categories of heritage resources are found during construction, the South African Heritage Resources Agency (SAHRA) must be alerted immediately, work in the immediate area must be halted if required by SAHRA, and a professional archaeologist or palaeontologist, depending on the nature of the finds, must be contacted to inspect the findings.

General

57. A copy of this environmental authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying-
 - 57.1. at the site of the authorised activity;
 - 57.2. to anyone on request; and
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- 57.3. where the holder of the environmental authorisation has a website, on such publicly accessible website.
58. National government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the holder of the authorisation or his/her successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the holder of the authorisation with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.

Date of environmental authorisation: 12/02/2018



Mr Sabelo Malaza

Chief Director, Integrated Environmental Authorisations
Department of Environmental Affairs

Annexure 1: Reasons for Decision

1. Information considered in making the decision

In reaching its decision, the Department took, *inter alia*, the following into consideration -

- a) The listed activities as applied for in the application form received on 20 April 2017.
- b) The findings of the site inspection held on 16 November 2017.
- c) The information contained in the EIAr dated October 2017.
- d) The comments received from SKA-SA, Eskom, SENTECH, South African Heritage Resources Agency (SAHRA), Birdlife South Africa, the Department of Agriculture, Forestry and Fisheries, the Hantam Local Municipality, the Endangered Wildlife Trust, the Civil Aviation Authority, Weather South Africa, SABAAP and Interested and Affected Parties as included in the EIAr dated October 2017.
- e) Mitigation measures as proposed in the EIAr and the EMPr dated October 2017.
- f) The information contained in the specialist studies contained within the appendices of the EIAr dated October 2017.

2. Key factors considered in making the decision

All information presented to the Department was taken into account in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below.

- a) The findings of all the specialist studies conducted and their recommended mitigation measures.
- b) The need for the project stems from the provision of electricity to the national grid in terms of the Renewable Energy Independent Power Producers Procurement Programme (RRIPPPP) as required by the Department of Energy.
- c) The EIAr dated October 2017 identified all relevant environmental legislation and guidelines that have been considered in the preparation of the EIAr dated October 2017.
- d) The location of turbines as presented in the final EIAr dated October 2017.
- e) The location of the development within the Karoo Central Astronomy Area and the significance of identified impacts to the Square Kilometre Array South Africa (SKA-SA).

- f) Concerns raised and comments provided by the SKA-SA on the findings of the Path Loss and Risk Assessment Report (including Emission Control Plan) study dated October 2017 and submitted as part of the EIAR dated October 2017.
- g) The methodology used in assessing the potential impacts identified in the EIAR dated October 2017 and the specialist studies have been adequately indicated.
- h) A sufficient public participation process was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations, 2014 for public involvement.

3. Findings

After consideration of the information and factors listed above, the Department made the following findings -

- a) The identification and assessment of impacts are detailed in the EIAR dated October 2017 and sufficient assessment of the key identified issues and impacts have been completed.
- b) The procedure followed for impact assessment is adequate for the decision-making process.
- c) The information contained in the EIAR dated October 2017 is deemed to be accurate and credible.
- d) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- e) EMPr measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the EIAR and will be implemented to manage the identified environmental impacts during the construction phase.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the authorised activities will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 and that any potentially detrimental environmental impacts resulting from the authorised activities can be mitigated to acceptable levels. The environmental authorisation is accordingly granted.

Annexure 2: Locality Plan

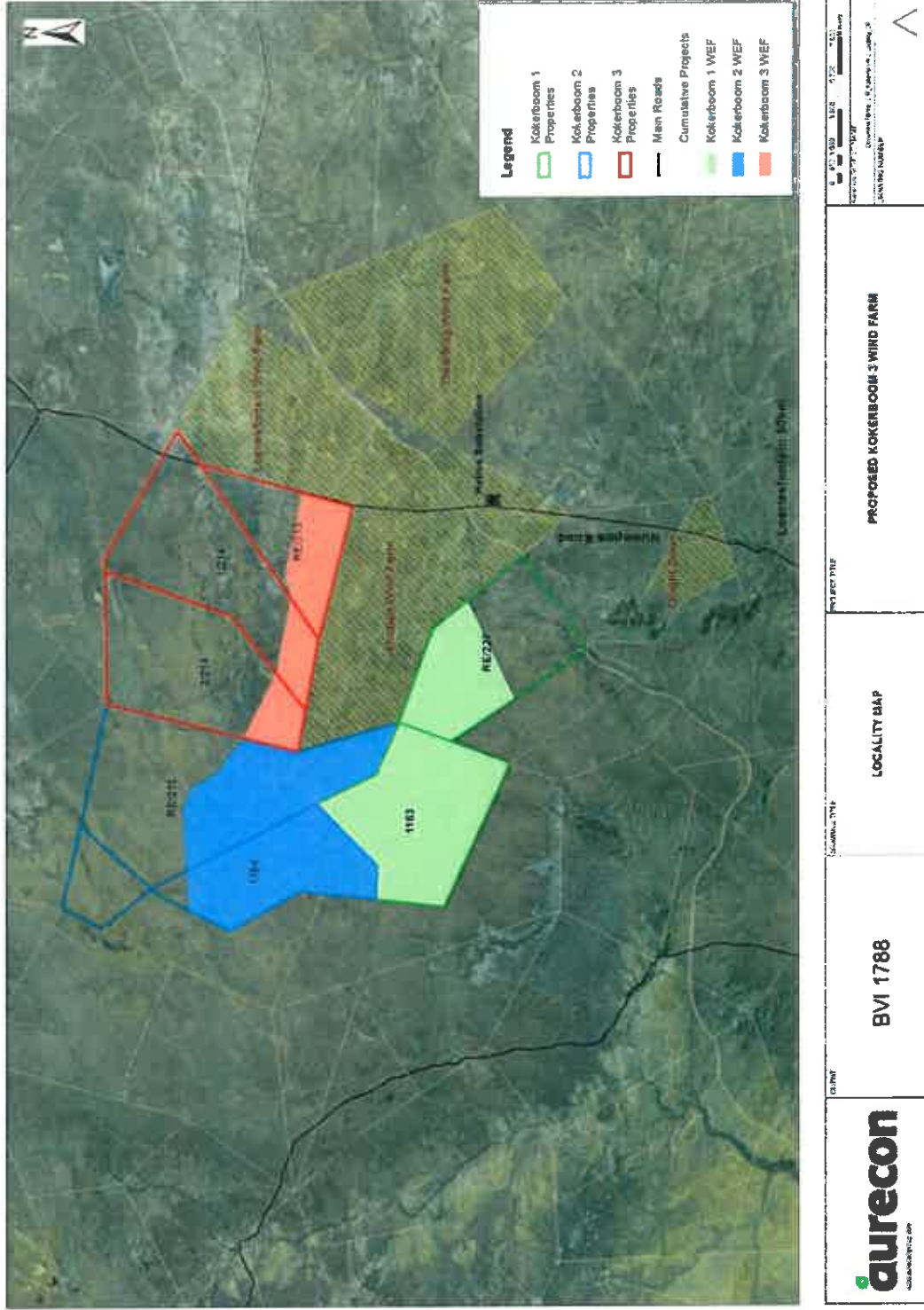


Figure 1-1 | Location of the farm portions for the proposed Kokerboom 3 Wind Farm near Lorientstein in the Northern Cape, in relation to the proposed Kokerboom 1 and 2 Wind Farms.

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